

Patent claims

1. A guide device for guiding an adjuster element
5 on an adjuster device for motor vehicles, comprising

- a guide track, along which the adjuster element can be moved,
- 10 - a guide section of the adjuster element, via which the adjuster element is guided in the guide track, and
- locking means for locking the guide section
15 in the guide track in at least two mutually spaced adjustment positions,

characterized in that the locking means comprise a movably mounted locking element (2, 2') having at least
20 two mutually spaced locking sections (20a, 20b, 20c), and in that the locking element (2, 2') can be brought into a locking position in which it, with one locking section (20a), can block the guide section (F) in a first adjustment position and, with the other locking
25 section (20b), can block the guide section (F) in a second adjustment position.

2. The guide device as claimed in claim 1, characterized in that the locking element (2, 2') can
30 be moved to and fro between a release position and a locking position, wherein, in the release position, it permits a movement of the guide section (F) in the guide track (11) and, in the locking position, blocks the guide section (F) in the guide track (11) in its
35 respective adjustment position.

3. The guide device as claimed in claim 1 or 2, characterized in that the locking element (2) is formed by a pivotably mounted locking lever.

4. The guide device as claimed in claim 1 or 2,
characterized in that the locking element (2') is
formed by a locking part which is mounted in a
5 longitudinally displaceable manner.

5. The guide device as claimed in one of the
preceding claims, characterized in that the locking
element (2, 2') is elastically pretensioned in the
10 direction of the locking position.

6. The guide device as claimed in claim 2 and 5,
characterized in that the locking element (2) can be
brought into the release position counter to the action
15 of the elastic pretensioning.

7. The guide device as claimed in one of the
preceding claims, characterized in that to the locking
element (2, 2') there is assigned a secondary locking
20 element (3), with which the locking element (2, 2') can
be detained in the locking position.

8. The guide device as claimed in claim 7,
characterized in that the secondary locking element (3)
25 is elastically pretensioned in the direction of a
position in which it detains the locking element (2,
2') in the locking position.

9. The guide device as claimed in claim 8,
30 characterized in that the secondary locking element can
be moved counter to the elastic pretensioning out of
the position in which it detains the locking element
(2, 2') in the locking position.

35 10. The guide device as claimed in one of claims 7
to 9, characterized in that the secondary locking
element (3) is coupled to the locking element (2, 2')
in such a way that, through movement of the secondary
locking element (3) out of the position in which it

detains the locking element (2, 2'), the locking element (2, 2') is brought into the release position.

11. The guide device as claimed in one of claims 7 to 10, characterized in that the secondary locking element (3) cooperates with the locking element (2, 2') via a link guide (21, 31).

12. The guide device as claimed in claim 11, characterized in that, for the tolerance equalization with respect to the subassemblies (2, 2', 3, 21, 31) involved in the locking of the guide section (F) and for the play-free locking of the guide section (F), the secondary locking element (3) is engaged with the locking element (2, 2') in the locking position in a play-bound manner.

13. The guide device as claimed in one of claims 7 to 12, characterized in that the secondary locking element (3) is formed by a pivotably mounted locking lever.

14. The guide device as claimed in one of the preceding claims, characterized in that the locking element (2) is arranged in such a way that, at least in the locking position, the weight force (G) acting upon the locking (2) acts in the direction of a maintenance of the locking position.

15. The guide device as claimed in one of the preceding claims, characterized in that the guide track (11) is formed by a guide link.

16. The guide device as claimed in claim 15, characterized in that the guide section (F) of the adjuster element is formed by a guide pin which engages in the guide link (11).

17. The guide device as claimed in one of the preceding claims, characterized in that the two adjustment positions are formed by two end positions of the guide section (F) in the guide track (11).

5

18. The guide device as claimed in claim 15 and 17, characterized in that in each of the two adjustment positions the guide section (F) is clamped between a lateral rim (11a, 11b) of the guide link (11) and a locking section (20a, 20b) of the locking element (2, 2').

10

19. The guide device as claimed in one of the preceding claims, characterized in that the guide section (F), in each of the adjustment positions, respectively acts upon the assigned locking section (20a, 20b, 20c) of the locking element (2, 2') in such a way that the locking element (2, 2') tends to remain in the locking position.

20

20. The guide device as claimed in claim 18 or 19, characterized in that the locking section (20a, 20b, 20c) is configured as an eccentric.

25

21. The guide device as claimed in one of the preceding claims, characterized in that two locking sections (20a, 20b) of the locking element (2, 2') are formed by lateral end sections of the locking element (2, 2').

30

22. The guide device as claimed in one of the preceding claims, characterized in that the locking element (2) has at least three locking sections (20a, 20b, 20c), which serve to lock the guide section (F) of the adjuster element in a respective adjustment position.

35

23. The guide device as claimed in claim 22, characterized in that at least one locking section (20c) is formed by a recess in the locking element (2).

5 24. The guide device as claimed in claim 23, characterized in that the recess forming the locking section (20c) has a tapered region for the play-free reception of the guide section (F).

10 25. The guide device as claimed in one of claims 22 to 24, characterized in that one adjustment position corresponds to a position of the guide section (F) between the two ends (11a, 11b) of the guide track (11).

15 26. The guide device as claimed in one of the preceding claims, characterized in that the locking element (2, 2') has a contact contour (23), which, during movement of the guide section (F) in the guide track (11) between two adjustment positions, is supported in sliding arrangement against the guide section (F), so that the locking element (2, 2') is held in a release position in which it does not block the guide section (F).

25 27. The guide device as claimed in claim 26, characterized in that the locking element (2, 2') automatically detains the guide section (F), under the action of at least one elastic element, when one of the adjustment positions is reached.

30 28. The guide device as claimed in one of the preceding claims, characterized in that it serves to guide an adjuster element of an adjuster device for motor vehicle seats.

29. The guide device as claimed in claim 28, characterized in that the adjuster device serves to

adjust a seat support, a backrest or a headrest of a motor vehicle seat.

30. A seat adjuster device for motor vehicles,
5 comprising a seat part to be adjusted and an adjuster element for adjusting the position of the seat part, characterized by a guide device as claimed in one of the preceding claims, by means of which the adjuster element is guided.